Test Report
Consistency test

Project Name	Drilling of Borewells and Providing RO Plants at Dwarakanagara, Palanahalli, Thirumenahalli and Srirampura in Ward No:05
Client	Executive Engineer,Yelahanka Project Division
Job No	MCTPL/BBMP/EE/YNK-Project/PMC/W-5/2018-19/2/QR
Mix Type	Plain cement concrete (1:4:8)
Contractor	Sri GopiReddy
Test Method	IS : 4031 (Part 5) -1988 & Specification for Road & Bridge Works, MORT&H, Rev-V.
Location	At Site
Material	Cement
Sample No	1
Date	1-May-2019

Sl. No.	Description	Trial 1	Trial 2	Trial 3	Trial 4	Trial 4
1	Weight of Cement	400	400	400	400	400
2	Percentage of water added (%)	28	28.5	29	30.4	31
3	Weight of Water (gm)	112	114	116	121.6	124
4	Initial Reading of Plunger (mm)	40	40	40	40	40
5	Difference (mm)	18.1	17	12	6.2	5.5

Executive Engineer Division Zone

Results: Standard Consistency of Cement: 31.00%

Note:

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For Mecadez Core Technologies Private Limited

Mecadez Core Technologies Private Limited

Authorised Signature

Test Report
Fineness test

Project Name	Drilling of Borewells and Providing RO Plants at Dwarakanagara, Palanahalli, Thirumenahalli and Srirampura in Ward No:05
Client	Executive Engineer,Yelahanka Project Division
Job No	MCTPL/BBMP/EE/YNK-Project/PMC/W-5/2018-19/2/QR
Mix Type	Plain cement concrete (1:4:8)
Contractor	Sri GopiReddy
Test Method	IS : 4031 (Part 5) -1988 & Specification for Road & Bridge Works, MORT&H, Rev-V.
Location	At site
Material	Cement
Sample No	1
Date	1-May-2019

Asst. Executive Engineer
Project Division
Yelahanka Zone
Bangalore

Sl. No	Determination	Trial 1	Trial 2
1	Weight of Cement before sieve (gm)	100	100
2	Weight of residue retained on 90um sieve (gm)	5.5	4.2
3	Percentage retained (%)	5.5	4.2
4	Average Percentage retained (%)	4.85	

Results: Residue of cement is: 4.85%

Comments: Maximum allowable residue by mass for ordinary portlad cement is 10%

Note:

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Test Report
Soundness test

Project Name	Drilling of Borewells and Providing RO Plants at Dwarakanagara, Palanahalli, Thirumenahalli and Srirampura in Ward No:05
Client	Executive Engineer,Yelahanka Project Division
Job No	MCTPL/BBMP/EE/YNK-Project/PMC/W-5/2018-19/2/QR
Mix Type	Plain cement concrete (1:4:8)
Contractor	Sri GopiReddy
Test Method	IS : 4031 (Part 3) -1988 & Specification for Road & Bridge Works, MORT&H, Rev-V.
Location	At Site
Material	Cement
Sample No	1
Date	1-May-2019

Asst. Executive Engineer
Project Division
Yelahanka
Bangalore

Sl. No.	Description	Trial 1	Trial 2	Trial 3
1	Initial Distance between the indicator points of Lechatelier mould	11	10	11
2	Final Distance between the indicator points of Lechatelier mould	18	20	19
3	Difference or expansion	7	10	8
4	Average Differences or Expansion in mm	8.33		

Results: Difference in Expansion of Cement: 8.33mm

Comments: Maximum allowable Expansion of cement is 10mm.

Note:

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Test Report
Compressive strength test

Project Name	Drilling of Borewells and Providing RO Plants at Dwarakanagara, Palanahalli, Thirumenahalli and Srirampura in Ward No:05
Client	Executive Engineer,Yelahanka Project Division
Job No	MCTPL/BBMP/EE/YNK-Project/PMC/W-5/2018-19/2/QR
Mix Type	Plain cement concrete (1:4:8)
Contractor	Sri GopiReddy
Test Method	IS : 4031 (part 6)-1988 & Specification for Road & Bridge Works, MORT&H, Rev. V.
Location	At Site
Material	Cement
Sample No	1
Date	11-May-2018

Asst. Executive Engineer
Project Division
Yelahanka Zone
Bangalore

Cube	Cement Grade	Age at Test (Days)	Slump (mm)	Weight (kg)	Dimension (LxWxH)	Density (kg/m3)	Max. Load (KN)	Area (mm2)	Compressive Strength (N/mm2)	Average Sample (n/mm2)
1	43	7	-	0.87	70.6x70.6 x70.6	2472.32	188	4984.36	37.72	38.12
2	43	7	-	0.89	70.6x70.6 x70.6	2529.16	192	4984.36	38.52	

Results: 7-days Compressive strength of cement is 38.12N/mm^2

Comments: 7-days Compressive strength of cement should not be less than 33 N/mm^2

Note:

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Test Report
Compressive strength test

Project Name	Drilling of Borewells and Providing RO Plants at Dwarakanagara, Palanahalli, Thirumenahalli and Srirampura in Ward No:05
Client	Executive Engineer,Yelahanka Project Division
Job No	MCTPL/BBMP/EE/YNK-Project/PMC/W-5/2018-19/2/QR
Mix Type	Plain cement concrete (1:4:8)
Contractor	Sri GopiReddy
Test Method	IS : 4031 (part 6)-1988 & Specification for Road & Bridge Works, MORT&H, Rev. V.
Location	At Site
Material	Cement
Sample No	1
Date	1-Jun-2019

Asst. Executive Engineer
Project Division
Yelahanka Zone
Bangalore

Cube	Cement Grade	Age at Test (Days)	Slump (mm)	Weight (kg)	Dimension (LxWxH)	Density (kg/m3)	Max. Load (KN)	Area (mm2)	Compressive Strength (N/mm2)	Average Sample (n/mm2)
1	43	28	-	0.89	70.6x70.6 x70.6	2529	241	4984.36	48.35	48.75
2	43	28	-	0.92	70.6x70.6 x70.6	2316	245	4984.36	49.15	

Results: 28-days Compressive strength of cement is 48.75N/mm^2

Comments: 28-days Compressive strength of cement should not be less than 43 N/mm^2

Note:

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Test Report
Gradation test

Project Name	Drilling of Borewells and Providing RO Plants at Dwarakanagara, Palanahalli, Thirumenahalli and Srirampura in Ward No:05
Client	Executive Engineer,Yelahanka Project Division
Job No	MCTPL/BBMP/EE/YNK-Project/PMC/W-5/2018-19/2/QR
Mix Type	Plain cement concrete (1:4:8)
Contractor	Sri GopiReddy
Test Method	IS : 2386 (Part - 1) 1963 & Specification for Road & Bridge Works, MORT&H, Rev. V.
Location	At site
Material	Fine Aggregates
Sample No	1
Date	1-May-2019

Asst. Executive Engineer Project Division Yelahanka Zone Bangalore

Weight of Sample(gram): 200

Sl No.	IS Sieve Size	Weight retained	% retained	% Cumulative	Cumulative % of Passing		Remarks
					% Passing	Gradation limits	
1	10 mm	0	0.00	0.00	100.00	100	Gradation satisfies the MORT&H Zone ll Specification
2	4.75 mm	16	8.00	8.00	92.00	90-100	
3	2.36 mm	17	8.50	16.50	83.50	75-100	
4	1.18 mm	17	8.50	25.00	75.00	55-90	
5	600 µ	43	21.50	46.50	53.50	35-59	
6	300 µ	58	29.00	75.50	24.50	8-30	
7	150 µ	40	20.00	95.50	4.50	0-10	

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Test Report
Gradation test

Project Name	Drilling of Borewells and Providing RO Plants at Dwarakanagara, Palanahalli, Thirumenahalli and Srirampura in Ward No:05
Client	Executive Engineer,Yelahanka Project Division
Job No	MCTPL/BBMP/EE/YNK-Project/PMC/W-5/2018-19/2/QR
Mix Type	Plain cement concrete (1:4:8)
Contractor	Sri GopiReddy
Test Method	IS : 2386 (Part - 1) 1963 & Specification for Road & Bridge Works, MORT&H, Rev. V.
Location	At site
Material	Coarse aggregates
Sample No	1
Date	1-May-2019

Executive Engineer Project Division Yelahanka Zone Bangalore

Weight of Sample: 4000 gms

Sl. No	I.S. Sieve size	Weight Retained (gm)	Percentage of weight Retained (%)	Percentage of weight retained (%)	Passing		Remarks
					Test Result	Limits as per MORT&H	
1	31.50	0	0.00	0.00	100.00	100	Material Satisfies the PQC Gradation
2	26.50	492	12.30	12.30	87.70	85-95	
3	19.00	245	6.13	18.43	81.58	68-88	
4	9.50	675	16.88	35.30	64.70	45-65	
5	4.75	430	10.75	46.05	53.95	30-55	
6	0.60	986	24.65	70.70	29.30	8-30	
7	0.15	853	21.33	92.03	7.98	5-15	
8	0.08	251	6.28	98.30	1.70	0-5	

Note:

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Test Report
Water absorption test

Project Name	Drilling of Borewells and Providing RO Plants at Dwarakanagara, Palanahalli, Thirumenahalli and Srirampura in Ward No:05
Client	Executive Engineer,Yelahanka Project Division
Job No	MCTPL/BBMP/EE/YNK-Project/PMC/W-5/2018-19/2/QR
Mix Type	Plain cement concrete (1:4:8)
Contractor	Sri GopiReddy
Test Method	IS : 2386 (Part - 3) 1963 & Specification for Road & Bridge Works, MORT&H, Rev. V.
Location	At site
Material	Coarse aggregates
Sample No	1
Date	1-May-2019

Asst. Executive Engineer Project Division Yelahanka Zone Bangalore

Sl. No	Particulars	Computations	Test Numbers		Mean
			Test 1	Test 2	
1	Weight of SSD sample	W_1 g	761	763	
2	Aggregates Immersed in	W_2g	2075	2060	
3	Weight of Saturated Aggregate in water	$W_s g = W_2 - W_1$	1314	1297	
4	dry aggregate in Air	W_3 g	2110	2085	
5	Volume of the Aggregate	$W_3 - W_s$	796	788	
6	Aggregate	W_4g	2071	2056	
7	Specific Gravity	$W_4/(W_3 - W_s)$	2.60	2.61	2.61
8	Apparent Specific Gravity	$W_4/(W_4 - W_s)$	2.74	2.71	2.72
9	Water Absorption	$(W_4 - W_3)*100/W_4$	1.88	1.41	1.65

Comments: Maximum allowable Aggregate Water Absorption value for PCC is 2.0%.

Note:

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For Mecadez Core Technologies Private Limited

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Test Report
Impact test

Project Name	Drilling of Borewells and Providing RO Plants at Dwarakanagara, Palanahalli, Thirumenahalli and Srirampura in Ward No:05
Client	Executive Engineer,Yelahanka Project Division
Job No	MCTPL/BBMP/EE/YNK-Project/PMC/W-5/2018-19/2/QR
Mix Type	Plain cement concrete (1:4:8)
Contractor	Sri GopiReddy
Test Method	IS : 2386 (Part - 4) 1963 & Specification for Road & Bridge Works, MORT&H, Rev. V.
Location	At Site
Material	Coarse aggregates
Sample No	1
Date	2-May-2019

Asst. Executive Engineer Sign Project Division Yelahanka Zone Bangalore

	Determination	Unit	Trails	
1	Weight of empty cylinder, w1	gm	960	960
2	Weight of container filled with Aggregate, w2	gm	1310	1306
3	Weight of the Aggregate before compaction, (w2 - w1) = w3	gm	350	346
4	Weight of the sample passing through 2.36 mm IS sieves after Impact, w4	gm	84	82
5	Weight of the sample retained on 2.36 mm IS sieve after Impact, w5	gm	266	264
6	Aggregate Impact Value (w4 / w3)x100	%	24.00	23.70
7	Specified Limit	%	45.00	

Results: Average Aggregate Impact Value: **23.85** %

Note:

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Test Report
Concrete Compresive strength

Project Name	Drilling of Borewells and Providing RO Plants at Dwarakanagara, Palanahalli, Thirumenahalli and Srirampura in Ward No:05
Client	Executive Engineer,Yelahanka Project Division
Job No	MCTPL/BBMP/EE/YNK-Project/PMC/W-5/2018-19/2/QR
Mix Type	Concrete(M15)
Contractor	Sri GopiReddy
Test Method	IS : 4031 (part 6)-1988 & Specification for Road & Bridge Works, MORT&H, Rev. V.
Location	Bay
Material	Concrete
Sample No	1
Date	18-May-2019

Asst. Executive Engineer
Project Division
Yelahanka Zone
Bangalore

Cube	Concrete Grade	Age at Test (Days)	Weight (kg)	Dimension (LxWxH)	Density (kg/m^3)	Max. Load (KN)	Area (m^2)	Compressive Strength (N/mm^2)	Avg. Sample Strength	Avg. Strength
1	20	7	6.57	150*150*150	1946.67	252	0.0225	11.20	11.67	11.68
2	20	7	6.64	150*150*150	1967.41	271	0.0225	12.04		
3	20	7	6.50	150*150*150	1925.93	265	0.0225	11.78		
4	20	7	6.79	150*150*150	2011.85	253	0.0225	11.24	11.69	
5	20	7	6.60	150*150*150	1955.56	261	0.0225	11.60		
6	20	7	6.60	150*150*150	1955.56	275	0.0225	12.22		

Results: 7-days Compressive strength of cement is 11.68 N/mm2

Note:

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For Mecadez Core Technologies Private Limited

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Test Report
Concrete Compresive strength

Project Name	Drilling of Borewells and Providing RO Plants at Dwarakanagara, Palanahalli, Thirumenahalli and Srirampura in Ward No:05
Client	Executive Engineer,Yelahanka Project Division
Job No	MCTPL/BBMP/EE/YNK-Project/PMC/W-5/2018-19/2/QR
Mix Type	Concrete(M15)
Contractor	Sri GopiReddy
Test Method	IS : 4031 (part 6)-1988 & Specification for Road & Bridge Works, MORT&H, Rev. V.
Location	Bay
Material	Concrete
Sample No	1
Date	8-Jun-2019

Asst. Executive Engineer
Project Division
Yelahanka Zone
Bangalore

Cube	Concrete Grade	Age at Test (Days)	Weight (kg)	Dimension (LxWxH)	Density (kg/m^3)	Max. Load (KN)	Area (m^2)	Compressive Strength (N/mm^2)	Avg. Sample Strength	Avg. Strength
1	20	28	7.91	150*150*150	2343.70	423.00	0.0225	18.80	19.32	19.53
2	20	28	7.80	150*150*150	2311.11	436.00	0.0225	19.38		
3	20	28	7.70	150*150*150	2281.48	445.00	0.0225	19.78		
4	20	28	7.95	150*150*150	2355.56	462.00	0.0225	20.53	19.75	
5	20	28	7.91	150*150*150	2343.70	441.00	0.0225	19.60		
6	20	28	7.80	150*150*150	2311.11	430.00	0.0225	19.11		

Results: 28-days Compressive strength of cement is 19.53 N/mm2

Note:

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Test Report
Concrete Compresive strength

Project Name	Drilling of Borewells and Providing RO Plants at Dwarakanagara, Palanahalli, Thirumenahalli and Srirampura in Ward No:05
Client	Executive Engineer,Yelahanka Project Division
Job No	MCTPL/BBMP/EE/YNK-Project/PMC/W-5/2018-19/2/QR
Mix Type	Concrete(M20)
Contractor	Sri GopiReddy
Test Method	IS : 4031 (part 6)-1988 & Specification for Road & Bridge Works, MORT&H, Rev. V.
Location	Bay
Material	Concrete
Sample No	1
Date	20-May-2019

Asst. Executive Engineer
Project Division
Yelahanka Zone
Bangalore

Cube	Concrete Grade	Age at Test (Days)	Weight (kg)	Dimension (LxWxH)	Density (kg/m^3)	Max. Load (KN)	Area (m^2)	Compressive Strength (N/mm^2)	Avg. Sample Strength	Avg. Strength
1	20	7	6.83	150*150*150	2023.70	360	0.0225	16.00	15.70	15.71
2	20	7	6.79	150*150*150	2011.85	342	0.0225	15.20		
3	20	7	6.72	150*150*150	1991.11	358	0.0225	15.91		
4	20	7	6.93	150*150*150	2053.33	352	0.0225	15.64	15.72	
5	20	7	6.75	150*150*150	2000.00	347	0.0225	15.42		
6	20	7	6.83	150*150*150	2023.70	362	0.0225	16.09		

Results: 7-days Compressive strength of cement is 15.71 N/mm2

Note:

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Test Report
Concrete Compresive strength

Project Name	Drilling of Borewells and Providing RO Plants at Dwarakanagara, Palanahalli, Thirumenahalli and Srirampura in Ward No:05
Client	Executive Engineer,Yelahanka Project Division
Job No	MCTPL/BBMP/EE/YNK-Project/PMC/W-5/2018-19/2/QR
Mix Type	Concrete(M20)
Contractor	Sri GopiReddy
Test Method	IS : 4031 (part 6)-1988 & Specification for Road & Bridge Works, MORT&H, Rev. V.
Location	Bay
Material	Concrete
Sample No	1
Date	10-Jun-2019

Asst. Executive Engineer Project Division Yelahanka Zone Bangalore

Cube	Concrete Grade	Age of Test (Days)	Weight (kg)	Dimension (LxWxH)	Density (kg/m^3)	Max. Load (KN)	Area (m^2)	Compressive Strength (N/mm^2)	Avg. Sample Strength	Avg. Strength
1	20	28	7.93	150*150*150	2349.63	532.00	0.0225	23.64	24.09	24.40
2	20	28	7.82	150*150*150	2317.04	542.00	0.0225	24.09		
3	20	28	7.62	150*150*150	2257.78	552.00	0.0225	24.53		
4	20	28	7.82	150*150*150	2317.04	548.00	0.0225	24.36	24.71	
5	20	28	7.93	150*150*150	2349.63	563.00	0.0225	25.02		
6	20	28	7.84	150*150*150	2322.96	557.00	0.0225	24.76		

Results: 28-days Compressive strength of cement is 24.40 N/mm2

Note:

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For Mecadez Core Technologies Private Limited

MECADEZ Core Technologies Pvt. Ltd. Bangalore

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Test Report
Solid block

Project Name	Drilling of Borewells and Providing RO Plants at Dwarakanagara, Palanahalli, Thirumenahalli and Srirampura in Ward No:05
Client	Executive Engineer,Yelahanka Project Division
Job No	MCTPL/BBMP/EE/YNK-Project/PMC/W-5/2018-19/2/QR
Contractor	Sri GopiReddy
Location	Bay
Material	Soild block
Sample No	1
Date	20-May-2019

Asst. Executive Engineer Project Division Yelahanka Zone Bangalore

SL.NO	Failure load in KN	CHARACTERISTIC COMPRESSIVE STRENGTH, fck , in, N/Sq.mm	AVG CHARACTERISTIC COMPRESSIVE STRENGTH, fck in N/Sq.mm	REMARKS
1	479	5.83	5.82	
2	463	5.71		
3	472	5.92		

Results: Compressive strength of solid block is 5.82 N/mm2

Note:

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Test Report
Steel

Project Name	Drilling of Borewells and Providing RO Plants at Dwarakanagara, Palanahalli, Thirumenahalli and Srirampura in Ward No:05
Client	Executive Engineer,Yelahanka Project Division
Job No	MCTPL/BBMP/EE/YNK-Project/PMC/W-5/2018-19/2/QR
Contractor	Sri GopiReddy
Location	Bay
Material	Steel
Sample No	1
Date	13-May-2019

Asst. Executive Engineer Project Division Yelahanka Zone Bangalore

Sl. No.	Dia in mm	Weight in Kg/mtr	Average Weight Kg/mtr	Ultimate Load in KN	Ultimate Tensile stress in N/mm^2	Average Ultimate Tensile Stress N/mm^2	Elongation in mm	Bending and Rebending
1	8	0.395	0.4	32.2	640.6	622.7	20	OK
	8	0.398		30.4	604.79			
2	10	0.601	0.6	47.2	600.97	597.15	20	OK
	10	0.593		46.6	593.33			
3	12	0.896	0.88	72.8	643.69	631.32	20	OK
	12	0.872		70	618.94			
4	16	1.598	1.6	118.5	589.37	595.59	20	OK
	16	1.605		121	601.8			

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